



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yoshio AKIYAMA et al.

Group Art Unit: 1794

Application No.: 10/521,588

Examiner: M. JACOBSON

Filed: September 6, 2005

Docket No.: 122473

For: BLOW MOLDED ARTICLE

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Examiner's Answer maintains the claim rejections and raises new points of argument. The following remarks summarize the rejections and address the new points of argument raised in the Examiner's Answer dated January 14, 2009.

I. Summary of Claimed Subject Matter

The Summary of Claimed Subject Matter section of the Examiner's Answer (pages 2 and 3) correctly states that claim 5 is directly dependent from claim 1. Appellants understand from the Examiner's Answer that the Examiner otherwise agrees with the Summary of Claimed Subject Matter in Appellants' previously filed Appeal Brief.

II. Summary of Rejections

In the Examiner's Answer, the Examiner maintains the rejection of claim 12 under 35 U.S.C. §112, second paragraph, and the rejections of claims 1-3 and 5 under 35 U.S.C. §102(b) over U.S. Patent No. 3,663,522 to Butcher, and claims 6-12 under 35 U.S.C. §103(a)

over Butcher in view of U.S. Patent 6,546,133 to Schmidt et al. (hereinafter "Schmidt"). The rejections of claim 12 under 35 U.S.C. §112, second paragraph, and independent claim 1 under 35 U.S.C. §102(b) over Butcher are discussed in detail below. For the reasons discussed below, and in Appellants' previously filed Appeal Brief, Appellants respectfully request reversal of the rejections of claims 1-3 and 5-12.

III. Rejection of Claim 12 under 35 U.S.C. §112, second paragraph

Claim 12 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite because of the term "low compatibility" recited therein.

First, Appellants respectfully point out that the Examiner's Answer (page 5) refers to the term "lower compatibility" (emphasis added). The February 25, 2008 Amendment amended the term "lower compatibility" to "low compatibility." Therefore, current claim 12 does not recite the term "lower compatibility" as discussed in the Examiner's Answer.

In response to Appellants' November 12 Appeal Brief, the Examiner's Answer (pages 11, lines 18-21) asserts that the term "low compatibility" is never specifically defined to mean a "level of compatibility that is sufficiently low to make the contacting layers easily peelable from each other based on the exemplary materials for the inner and outer layers." The Examiner's Answer, although quoting MPEP §2173.05(b), does not comply with the procedures set forth in MPEP §2173.05(b).

Appellants respectfully submit that the proper procedure as set forth in MPEP §2173.05(b) is to determine whether one of ordinary skill in the art would understand the terms used in the claims. In particular, MPEP §2173.05(b) (page 2100-222) states "When a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art

and the status of the art, would be nevertheless reasonably apprised of the scope of the invention" (emphasis added).

Claim 12 recites an outer layer, and an inner layer formed of a synthetic resin having a low compatibility with a synthetic resin forming the outer layer.

As confirmed by the Examiner's Answer (page 11), paragraph [0070] of Appellants' specification describes that the outer layer 1a is made of a synthetic resin material such as polyethylene, polypropylene and PET, and that the inner layer 1c is made of a synthetic resin material such as nylon, ethylene-vinylalcohol copolymer and polyethylene terephthalate.

Appellants respectfully submit that those skilled in the art, who are fully aware of the chemical characteristics of the materials discussed in paragraph [0070] of Appellants' specification, would understand the characteristics of the materials used for the outer layer and the materials used for the inner layer without any specific definitions for compatibility of each exemplary material. More particularly, one of ordinary skill in the art would understand that, by the nature of the known characteristics of the disclosed materials for the inner and outer layers and the nature of their utilization in the context of the claimed invention, "low compatibility" in claim 12 refers to the fact that the inner and outer layers do not strongly adhere to, and thus are easily peelable from, one another. Thus, one of ordinary skill in the art would be reasonably apprised of the scope of Appellants' invention.

The Examiner's Answer (page 11, line 22-page 12, line 2) also asserts that Appellants have failed to provide any evidence that low compatibility is understood by those of ordinary skill in the art to imply that two layers would be easily peelable from one another. However, as discussed above, those skilled in the art would understand the chemical characteristics of the materials used for the outer and inner layers with respect to their level of compatibility. In

addition, the word "compatibility" is clear on its face in the context of the specification and claims.

Moreover, the term "compatibility" has an ordinary and customary meaning of "capable of forming a chemically or biochemically stable system" (see attached definition from The American Heritage Dictionary of the English Language, Fourth Ed.). Therefore, those skilled in the art would understand that "low compatibility," in light of the specification and the ordinary and customary meaning of the word, is a condition in which the outer layer and the inner layer are in a low stability state such that the outer layer is allowed to be peelable from the inner layer.

The term "low compatibility" as recited in claim 12 is therefore sufficiently clear and would be understood by one of ordinary skill in the art. Accordingly, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

**IV. Rejection of Claim 1 under 35 U.S.C. §102(b)
over U.S. Patent No.3,663,522 to Butcher**

Claim 1 is rejected under 35 U.S.C. §102(b) over Butcher. The Examiner's Answer asserts that Butcher discloses each and every feature of claim 1. However, Appellants respectfully submit that Butcher does not teach or suggest the relationship recited in the last paragraph of claim 1.

The Examiner's Answer (pages 14 and 15) provides the Examiner's new mathematical analysis to allegedly establish that Butcher discloses pinch-off lines that are formed within a circle having a diameter equal to or less than $\pi D_p/n$, wherein π represents a circular constant, D_p represents an outer diameter of a parison, and n represents the number of the pinch-off lines, as recited in claim 1. However, the Examiner's new mathematical analysis, even if assumed to be pertinent (which Appellants do not concede), suffers from at least two fatal flaws. First, the analysis is internally inconsistent, requiring correction in that regard.

Second, even if corrected to be internally consistent, the analysis is not based upon express or inherent disclosure of Butcher, as required.

As to the first fatal flaw, the Examiner's Answer (page 14) states that "Since the pinch off blades surround the tubular parison evenly, the length of the section ($L_{psection}$) of the circumference that they impinge upon in order to form the pinch off lines is equal to the circumference of the tubular body divided by the number of pinch off blades and therefore pinch off lines as shown in equation (2):" (emphasis added). Therefore, based on this analysis by the Examiner, $L_{psection} = C_p/n$. However, the Examiner's Answer inconsistently states equation (2) to be " $L_{psection} \leq C_p/n$," which includes a value of $L_{psection}$ less than C_p/n . The Examiner's Answer does not provide any evidence or reasons as to why $L_{psection}$ allegedly includes a value less than C_p/n . Similarly, the Examiner's Answer replaces, based on the above inconsistent equation (2), $D_{new} = L_{psection}$ (equation (4)) with $D_{new} \leq C_p/n$ (equation (5)), and then with $D_{new} \leq \pi D_p/n$ (equation (6)). This too is inconsistent with the Examiner's analysis. As discussed above, based on the Examiner's new mathematical analysis, $L_{psection}$ allegedly would be equal to C_p/n , and thus D_{new} allegedly would be equal to C_p/n (corrected equation (5)), and D_{new} allegedly would be equal to $\pi D_p/n$ (corrected equation (6)).

As to the second fatal flaw, even if the Examiner's new analysis were to be corrected to be internally consistent as discussed above, it would still not be consistent with Butcher, either expressly or inherently. Butcher discloses (col. 4, lines 1-14) that, after the tuck-in members 17, 18 and 19 come into effect and the parison 54 is formed, the stomper foot 48 is stretched to press against the closed inside bottom of the closed parison to form a seal. At this time, the upper portion 58, which, according to Fig. 2 of Butcher, is the body of the parison, is stretched by the extension of the stomper foot 48 as discussed at col. 4, lines 6-8 of Butcher. As shown in Fig. 2 of Butcher, if the stomper foot 48 is extended to provide a

downward force, and the body of the parison (upper portion 58) is generally stretched, each pinch-off line is thereby extended. The Examiner's new mathematical analysis provided in the Examiner's Answer does not consider these facts, but rather inaccurately calculates the value D_{new} based upon the fixed values of the circumference of the parison and the radius and diameter of a circle in which the pinch-off lines are formed.

Therefore, considering the stretching of the pinch-off lines as discussed above, the Examiner's equation (3) for Butcher (Examiner's Answer, page 15), i.e., radius (r) of the pinch-off region, would more accurately be $r > \frac{1}{2} L_{\text{psection}}$, equation (4) would more accurately be $D_{\text{new}} > L_{\text{psection}}$, equation (5) would more accurately be $D_{\text{new}} > C_p/n$, and equation (6) would more accurately be $D_{\text{new}} > \pi D_p/n$. Accordingly, in Butcher, the pinch-off lines are not expressly or inherently formed within a circle that has a diameter equal to or less than $\pi D_p/n$ as recited in independent claim 1. Quite to the contrary, a complete reading of Butcher indicates that the pinch-off lines are formed within a circle that has a diameter greater than $\pi D_p/n$.

At least for these reasons, the Examiner's mathematical analysis fails to show that Butcher discloses each and every feature of claim 1. As such, claim 1 is patentable over Butcher.

V. Dependent Claims 2, 3 and 5-12

The Office Action rejects claims 2, 3 and 5 under 35 U.S.C. §102(b) over Butcher, and rejects claims 6-12 under 35 U.S.C. §103(a) over Butcher in view of U.S. Patent 6,546,133 to Schmidt. Claims 2, 3 and 5-12 are allowable at least for their dependence on claim 1, as well as for the additional features they recite.

VI. Conclusion

For the reasons stated in the Brief on Appeal, as well as the additional reasons set forth above, Appellant respectfully requests this Honorable Board to reverse the rejections of claims 1-3 and 5-12.

Respectfully submitted,



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JAO:KXH/hms

Attachment:

The American Heritage Dictionary of the English Language,
Fourth Ed. (Houghton Mifflin Company, 2000)

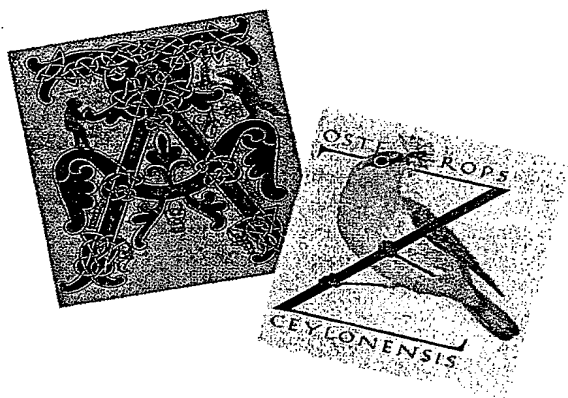
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The
**American
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FOURTH EDITION



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1. English language—Dictionaries

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or scope, as of understanding, perception, or authority: "Lacking a coherent intellectual and moral commitment, [he] was forced to find his compass in personal experience" (Doris Kearns Goodwin). See synonyms at **range**. 4. **Music** See **range** (sense 2b). ♦ **tr.v.** -passed, -passing, -passes 1. To make a circuit of; circle: The sailboat compassed the island. 2. To surround; encircle. See synonyms at **surround**. 3. To understand; comprehend. 4. To succeed in carrying out; accomplish. See synonyms at **reach**. 5. To scheme; plot. ♦ **adj.** 1. Forming a curved configuration. 2. Semicircular. Used of bow windows. [Middle English *compas*, circle, compass, from Old French, from *compasser*, to measure, from Vulgar Latin **compassare*, to pace off: Latin *com-*, *com-* + Latin *passus*, step; see **PACE**.] —**com'pass·a·ble** *adj.*

compass card *n.* A freely pivoting circular disk carrying the magnetic needles of a compass and marked with the 32 points of the compass and the 360 degrees of the circle.

com·pas·sion (kəm-pāsh'ən) *n.* Deep awareness of the suffering of another coupled with the wish to relieve it. See synonyms at **pity**. [Middle English *compassioun*, from Late Latin *compassiō*, *compassiōn-*, from *compassus*, past participle of *compati*, to sympathize: Latin *com-*, *com-* + Latin *pati*, to suffer; see **pē(i)-** in Appendix I.] —**com'pas·sion·less** *adj.*

com·pas·sion·ate (kəm-pāsh'ə-nīt) *adj.* 1. Feeling or showing compassion; sympathetic. See synonyms at **humane**. 2. Granted to an individual because of an emergency or other unusual circumstances: *compassionate military leave*. ♦ **tr.v.** (-nāt') -ated, -ating, -ates To pity. —**com'pas·sion·ate·ly** *adv.* —**com'pas·sion·ate·ness** *n.*

compassion fatigue *n.* A jaded attitude on the part of a contributor toward appeals for donations or charitable aid.

compass plant *n.* A perennial herb (*Silphium laciniatum*) in the composite family, native to prairie regions of the Midwest United States and having radiate yellow flower heads and erect, basal, pinnately divided leaves.

com·pat·i·ble (kəm-pāt'ə-bəl) *adj.* 1. Capable of existing or performing in harmonious, agreeable, or congenial combination with another or others: *compatible family relationships*. 2. Capable of orderly, efficient integration and operation with other elements in a system with no modification or conversion required. 3. Capable of forming a chemically or biochemically stable system. 4. Of or relating to a television system in which color broadcasts can be received in black and white by sets incapable of color reception. 5. **Medicine** Capable of being grafted, transfused, or transplanted from one individual to another without rejection: *compatible blood*. ♦ **n.** A device, such as a computer or computer software, that can be integrated into or used with another device or system of its type. [Middle English, from Medieval Latin *compatibilis*, from Late Latin *compati*, to sympathize. See **COMPASSION**.] —**com·pat'ib·i·l·i·ty**, **com·pat'ib·i·le·ness** *n.* —**com·pat'ib·i·ly** *adv.*

com·pa·tri·ot (kəm-pā'trē-ət, -ōt') *n.* 1. A person from one's own country. 2. A colleague. [French *compatriote*, from Late Latin *compatriōta*: Latin *com-*, *com-* + Late Latin *patriōta*, countryman; see **PATRIOT**.] —**com·pa·tri·ot'ic** (-ōt'ik) *adj.*

com·peer (kōm'pīr', kəm-pīr') *n.* 1. A person of equal status or rank; a peer. 2. A comrade, companion, or associate. [Middle English *comper*, from Old French, from Latin *compār*, equal. See **COMPARE**.]

com·pel (kəm-pēl') *tr.v.* -pelled, -pel·ing, -pels 1. To force, drive, or constrain: *Duty compelled the soldiers to volunteer for the mission*. 2. To necessitate or pressure by force; exact: *An energy crisis compels fuel conservation*. See synonyms at **force**. 3. To exert a strong, irresistible force on; sway: "The land, in a certain, very real way, compels the minds of the people" (Barry Lopez). [Middle English *compellen*, from Latin *compellere*: *com-*, *com-* + *pellere*, to drive; see **pel-** in Appendix I.] —**com·pel'la·ble** *adj.* —**com·pel'la·bly** *adv.* —**com·pel'ler** *n.*

com·pel·la·tion (kōm'pə-lā'shən) *n.* 1. The act of addressing or designating someone by name. 2. A name; an appellation. [Latin *compellatio*, *compellatiōn-*, from *compellātus*, past participle of *compellāre*, to address. See **pel-** in Appendix I.]

com·pel·ling (kōm-pēl'ing) *adj.* 1. Urgently requiring attention: *a host of compelling socioeconomic problems*. 2. Drivingly forceful: *compelling ambition and egotism*.

com·pend (kōm'pēnd') *n.* A compendium.

com·pen·di·a (kəm-pēn'dē-ə) *n.* A plural of **compendium**.

com·pen·di·ous (kəm-pēn'dē-əs) *adj.* Containing or stating briefly and concisely all the essentials; succinct. [Middle English, from Late Latin *compendiōsus*, from Latin *compendium*, a shortening. See **COMPENDIUM**.] —**com·pen·di·ous·ly** *adv.*

com·pen·di·um (kəm-pēn'dē-əm) *n.*, *pl.* -di·ums or -di·a (-dē-ə) 1. A short, complete summary; an abstract. 2. A list or collection of various items. [Latin, a shortening, from *compendere*, to weigh together: *com-*, *com-* + *pendere*, to weigh; see **(s)pen-** in Appendix I.]

com·pen·sa·ble (kəm-pēn'sə-bəl) *adj.* Being such as to entitle or warrant compensation: *compensable injuries*.

com·pen·sate (kōm'pən-sāt') *v.* -sat·ed, -sat·ing, -sates —**tr.** 1. To offset; counterbalance. 2. To make satisfactory payment or reparation to; recompense or reimburse: *Management compensated us for the time we worked*. 3. To stabilize the purchasing power of (a monetary unit) by changing the gold content in order to counterbalance price variations. —**intr.** To serve as or provide a substitute or counterbalance. [Latin *compensare*, *compensat-*: *com-*, *com-* + *pensare*, to weigh; see **(s)pen-** in Appendix I.] —**com·pen·sa·tive** (kōm'pən-sā'tiv, kəm-pēn'sā-tiv) *adj.* —**com·pen·sa·tor** *n.* —**com·pen·sa·to·ry** (kəm-pēn'sā-tōr'ē, -tōr'ē) *adj.*

com·pen·sa·tion (kōm'pən-sā'shən) *n.* 1. The act of compensating or the state of being compensated. 2. Something, such as money,

given or received as payment or reparation, as for a service or loss. 3. **Biology** The increase in size or activity of one part of an organism or organ that makes up for the loss or dysfunction of another. 4. **Psychology** Behavior that develops either consciously or unconsciously to offset a real or imagined deficiency, as in personality or physical ability. —**com·pen·sa·tion·al** *adj.*

compensatory time *n.* Time off given to an employee in place of overtime pay.

com·pere (kōm'pär') *Chiefly British n.* The master of ceremonies, as of a television entertainment program or a variety show. ♦ **v.** -pered, -per·ing, -peres —**tr.** To serve as master of ceremonies for. —**intr.** To serve as the master of ceremonies. [French *compère*, from Old French *godfather*, companion, from Medieval Latin *compater*: Latin *com-*, *com-* + Latin *pater*, father; see **PATER**.]

com·pete (kəm-pēt') *intr.v.* -pet·ed, -pet·ing, -petes To strive against another or others to attain a goal, such as an advantage or a victory. See synonyms at **rival**. [Late Latin *competere*, to strive together, from Latin, to coincide, be suitable: *com-*, *com-* + *petere*, to seek; see **pet-** in Appendix I.]

com·pe·tence (kōm'pī-təns) *n.* 1a. The state or quality of being adequately or well qualified; ability. See synonyms at **ability**. b. A specific range of skill, knowledge, or ability. 2. **Law** The quality or condition of being legally qualified to perform an act. 3. Sufficient means for comfortable existence. 4. **Microbiology** The ability of bacteria to be genetically transformable. 5. **Medicine** The ability to respond immunologically to bacteria, viruses, or other antigenic agents. 6. **Linguistics** The knowledge that enables one to produce and comprehend a language. —**com·pe·ten·cy** (kōm'pī-tən-sē) *n.*, *pl.* -cies Competence.

com·pe·tent (kōm'pī-tənt) *adj.* 1. Properly or sufficiently qualified; capable: *a competent typist*. 2. Adequate for the purpose: *competent performance*. 3. **Law** Legally qualified or fit to perform an act. [Middle English, adequate, from Old French, from Latin *competens*, competent-, present participle of *competere*, to be suitable. See **COMPETE**.] —**com·pe·tent·ly** *adv.*

com·pe·ti·tion (kōm'pī-tish'ən) *n.* 1. The act of competing, as for profit or a prize; rivalry. 2. A test of skill or ability; a contest: *a skating competition*. 3. Rivalry between two or more businesses striving for the same customer or market. 4. A competitor: *The competition has cornered the market*. 5. **Ecology** The simultaneous demand by two or more organisms for limited environmental resources, such as nutrients, living space, or light.

com·pet·i·tive (kəm-pēt'ī-tiv) *adj.* 1. Of, involving, or determined by competition: *competitive games*. 2. Liking competition or inclined to compete: *a highly competitive teammate*. 3. **Biochemistry** Relating to the inhibition of enzyme activity that results from the reversible combination of an enzyme with an alternate compound and prevents normal substrate binding. —**com·pet'itive·ly** *adv.* —**com·pet'itive·ness** *n.*

com·pet·i·tor (kəm-pēt'ī-tər) *n.* One that competes with another, as in sports or business; a rival.

Com·piègne (kōmp-yān', kōn-pyēn'yā) *n.* A city of northern France on the Oise River northeast of Paris. The armistice ending World War I was signed in a railroad car in a nearby forest on November 11, 1918. Adolf Hitler demanded that the same car be used for the formal surrender of France in World War II on June 22, 1940. Population: 40,384.

com·pi·la·tion (kōm'pə-lā'shən) *n.* 1. The act of compiling. 2. Something, such as a set of data, a report, or an anthology, that is compiled.

com·pile (kəm-pīl') *tr.v.* -piled, -pil·ing, -piles 1. To gather into a single book. 2. To put together or compose from materials gathered from several sources: *compile an encyclopedia*. 3. **Computer Science** To translate (a program) into machine language. [Middle English *compilen*, from Old French *compiler*, probably from Latin *compilare*, to plunder: *com-*, *com-* + *pila*, heap (of stones), pillar.]

com·pil·er (kəm-pīl'ər) *n.* 1. One that compiles: *a compiler of encyclopedias*. 2. **Computer Science** A program that translates another program written in a high-level language into machine language so that it can be executed.

com·pla·cence (kəm-plā'səns) *n.* 1. Contented self-satisfaction. 2. Total lack of concern.

com·pla·cency (kəm-plā'sən-sē) *n.* 1. A feeling of contentment or self-satisfaction, especially when coupled with an unawareness of danger, trouble, or controversy. 2. An instance of contented self-satisfaction.

com·pla·cent (kəm-plā'sənt) *adj.* 1. Contented to a fault; self-satisfied and unconcerned: *He had become complacent after years of success*. 2. Eager to please; complaisant. [Latin *complacens*, *complacens*, present participle of *complacere*, to please: *com-*, intensive pref.; see **COM-** in Appendix I.] —**com·pla·cent·ly** *adv.*

com·plain (kəm-plān') *intr.v.* -plained, -plain·ing, -plains 1. To express feelings of pain, dissatisfaction, or resentment. 2. To make a formal accusation or bring a formal charge. [Middle English *complaignen*, from Old French *complaignre*, *complaign-*, from Vulgar Latin **complagere*: Latin *com-*, intensive pref.; see **COM-** in Appendix I.] —**com·plain·er** *n.*

com·plain·ant (kəm-plā'nənt) *n.* **Law** A party that makes a complaint or files a formal charge, as in a court of law; a plaintiff.

com·plaint (kəm-plānt') *n.* 1. An expression of pain, dissatisfaction, or resentment. 2. A cause or reason for complaining; a grievance. 3a. A bodily disorder or disease; a malady or ailment. b. The symptoms or distress about which a patient seeks medical assistance. 4. **Law** A presentation by the plaintiff in a civil action, setting forth the claim for which relief is sought. b. A formal charge, made under oath, of the crime